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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,394

05/15/2006

Junsei Tanaka

2006_0727A

1344

513 7590 08/13/2008

WENDEROTH, LIND & PONACK, L.L.P.

2033 K STREET N. W.

SUITE 800

WASHINGTON, DC 20006-1021

EXAMINER

LESLIE, MICHAEL S

ART UNIT

PAPER NUMBER

3745

MAIL DATE

DELIVERY MODE

08/13/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,394	Applicant(s) TANAKA ET AL.	
	Examiner MICHAEL LESLIE	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4,5,7 and 8 is/are allowed.
- 6) ☒ Claim(s) 3,6 and 9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/15/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 3, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kasuya et al (JP 10-082402).

Kasuya et al discloses a hydraulic pressure control device of a construction machine, having first and second variable displacement hydraulic pumps (1; 6), first and second hydraulic actuators (2, 3; 7, 8) driven by being supplied with pressure oil discharged from the first and the second variable displacement hydraulic pumps, first and second main operation valves (4, 5; 9, 10) that switch directions and flow rates of the pressure oil supplied to the first and the second hydraulic actuators, first and second discharge fluid passages (11; 12) that connect discharge ports of the first and the second variable displacement hydraulic pumps with the first and the second main operation valves, first and second pressure compensation valves (43, 44; 45, 46) that compensate each differential pressure before and after the first and the second main operation valves to each predetermined value, a first merging/separating valve (14a) that switches between a merge position, which makes a connection between the first discharge fluid passage and the second discharge fluid passage, and a separation position, which blocks between the first discharge fluid passage and the second discharge fluid passage, maximum load pressure detection means (27a,b, 28a,b) that detects maximum load pressure among load pressures of the

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first and the second hydraulic actuators, first and second load pressure introduction fluid passages (70; not labeled) that introduce load pressure to the first and the second pressure compensation valves, a second merging/separating valve (14b) that switches between a merge position, which introduces pressure oil with the maximum load pressure as detected by the maximum load pressure detection means to the first and the second load pressure introduction fluid passages, and a separation position, which introduces the load pressures of the first and the second hydraulic actuators to the corresponding first and second load pressure introduction fluid passages respectively, necessary flow rate calculation means (17) that calculates necessary flow rates to be supplied to the first and the second hydraulic actuators, determination means (17) to determine whether each of the necessary flow rates of the first and the second hydraulic actuators calculated by the necessary flow rate calculation means is less than maximum discharge flow rate per pump of the first and the second variable displacement hydraulic pumps, and control means (17) that controls a switching of the first merging/separating valve and the second merging/separating valve from the merge position to the separation position, when the first merging/separating valve and the second merging/separating valve are in the merge position and the determination means determines that each of the necessary flow rates of the first and the second hydraulic actuators is less than maximum discharge flow rate per pump of the first and the second variable displacement hydraulic pumps. Wherein the control means performs control to switch the first merging/separating valve and the second merging/separating valve from the separation position to the merge position, when the first merging/separating valve and the second merging/separating valve are in the separation position and the determination means determines that at least one of the necessary flow rates of the first and the second hydraulic actuators is the

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maximum discharge flow rate or more per pump of the first and the second variable displacement hydraulic pumps.

Claims 3, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuji (WO 94/10455).

Tsuji discloses a hydraulic pressure control device of a construction machine, having first and second variable displacement hydraulic pumps (1; 6), first and second hydraulic actuators (2, 3; 7, 8) driven by being supplied with pressure oil discharged from the first and the second variable displacement hydraulic pumps, first and second main operation valves (4,5; 9,10) that switch directions and flow rates of the pressure oil supplied to the first and the second hydraulic actuators, first and second discharge fluid passages (11; 12) that connect discharge ports of the first and the second variable displacement hydraulic pumps with the first and the second main operation valves, first and second pressure compensation valves (43,44; 45,46) that compensate each differential pressure before and after the first and the second main operation valves to each predetermined value, a first merging/separating valve (14) that switches between a merge position, which makes a connection between the first discharge fluid passage and the second discharge fluid passage, and a separation position, which blocks between the first discharge fluid passage and the second discharge fluid passage, maximum load pressure detection means (4a, 5a, 9a, 10a) that detects maximum load pressure among load pressures of the first and the second hydraulic actuators, first and second load pressure introduction fluid passages (not labeled; not labeled) that introduce load pressure to the first and the second pressure compensation valves, a second merging/separating valve (41) that switches between a merge position, which introduces

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pressure oil with the maximum load pressure as detected by the maximum load pressure detection means to the first and the second load pressure introduction fluid passages, and a separation position, which introduces the load pressures of the first and the second hydraulic actuators to the corresponding first and second load pressure introduction fluid passages respectively, necessary flow rate calculation means (17) that calculates necessary flow rates to be supplied to the first and the second hydraulic actuators, determination means (17) to determine whether each of the necessary flow rates of the first and the second hydraulic actuators calculated by the necessary flow rate calculation means is less than maximum discharge flow rate per pump of the first and the second variable displacement hydraulic pumps, and control means (17) that controls a switching of the first merging/separating valve and the second merging/separating valve from the merge position to the separation position, when the first merging/separating valve and the second merging/separating valve are in the merge position and the determination means determines that each of the necessary flow rates of the first and the second hydraulic actuators is less than maximum discharge flow rate per pump of the first and the second variable displacement hydraulic pumps. Wherein the control means performs control to switch the first merging/separating valve and the second merging/separating valve from the separation position to the merge position, when the first merging/separating valve and the second merging/separating valve are in the separation position and the determination means determines that at least one of the necessary flow rates of the first and the second hydraulic actuators is the maximum discharge flow rate or more per pump of the first and the second variable displacement hydraulic pumps.

Allowable Subject Matter

Claims 1, 2, 4, 5, 7, and 8 are allowed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 6276133, 6170261, and 4768339 each disclose a hydraulic pressure control device of a construction machine having a merging/separating valve.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL LESLIE whose telephone number is (571)272-4819. The examiner can normally be reached on M-F 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ML
August 8, 2008

**/Michael Leslie/
Primary Examiner, Art Unit 3745**